

# MASSACHUSETTS WETLANDS RESTORATION NEWS

*The Newsletter of the Partnership to Restore Massachusetts Wetlands*

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Wetlands Restoration & Banking Program  
Volume 3, Number 1

Massachusetts Executive Office of Environmental Affairs  
Winter/Spring 1997

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## **Secretary Coxe Announces Grant Program, Presents Restoration Awards**

The Wetlands Restoration & Banking Program (WRBP) hosted the Second Annual Meeting of the Partnership To Restore Massachusetts Wetlands on Saturday, October 19, 1996, in Worcester. One hundred conservation commissioners, scientists, state and federal agency staff, and other wetland advocates came together to learn of the progress being made towards restoring the Commonwealth's wetlands and to share information and experience.

In her keynote address, Environmental Affairs Secretary Trudy Coxe emphasized the importance of a collective effort for wetlands restoration and particularly noted the contributions of the Quincy Department of Public Works, 8 Towns and the Bay, and the Brookline Conservation Commission.

Secretary Coxe announced that she has established a new GROWetlands Grants Program for wetland restoration to be administered by WRBP, initially funded at \$50,000. (See article opposite for details.)

To further highlight how individual contributions add up to significant environmental gains, Secretary Coxe presented the first round of Massachusetts Wetlands Restoration Awards to the following:  
(See photo on page 2.)

*The Essex County Mosquito Control Project* was recognized for its leadership in developing and promoting the technique of Open Marsh Water Management (OMWM) for salt marsh restoration and mosquito control, and for restoring hundreds of acres of ditched and drained salt marshes in Essex County.

*The City of Quincy* was recognized for setting an example of municipal stewardship of wetlands. The City has restored more than 30 acres of degraded salt marsh at a cost of \$375,000 to the community and has already identified at least three additional wetland restoration projects.

*Garrett Hollands and Dennis Lowry, Fugro*, were recognized for their significant contributions to the science of wetlands restoration in New England and for their voluntary contributions to the Wetlands Restoration & Banking Program.

*Susan Gillan, City of Chicopee Conservation Director*, was recognized for seeking and implementing opportunities to turn conventional public works projects into educational and restoration projects that benefit streams and wetlands.

*Ralph Tiner, U.S. Fish & Wildlife Service*, was recognized for his contributions nationally to the science of wetlands restoration, his ongoing efforts to educate the public regarding wetlands through his many books and articles, and his two-year contribution to the development of Massachusetts' proactive wetlands restoration program.

## **WRBP Announces GROWetlands Grants Program**

WRBP is pleased to announce a new GROWetlands Grant Program. \$50,000 has been allocated for the first round of projects. There are no restrictions on who may apply. Funds will cover project implementation only, and may not be applied to project planning and design. Both coastal and inland wetlands restoration projects are eligible. A request for responses (RFR) will be issued by WRBP in early April. Watch for an announcement in the Environmental Monitor or call WRBP at (617) 727-

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9800 x213 to request the RFR.

Natural Resources Conservation Service, Massachusetts Association of Conservation Commissions, Federal Highway Administration, U.S. Army Corps of Engineers, Massachusetts Executive Office of Transportation & Construction, Massachusetts Audubon Society, and the Executive Office of Environmental Affairs. Over the next year, this group will further the interests of the Partnership by developing watershed wetlands restoration plans, implementing wetland restoration projects through the GROWetlands initiative (See article below.), establishing a wetlands restoration data base, expanding education and outreach efforts, and improving funding and project coordination among the agencies.

Copies of the report may be obtained by calling WRBP at (617) 727-9800 x213.

## **Cooperative Restoration Efforts Highlighted In Annual Report**

At the October 19, 1996 Annual Meeting, Christy Foote-Smith, WRBP Director and Coordinator of the Partnership to Restore Massachusetts Wetlands, presented the Annual Report of the Partnership. The Report details the wetland restoration activities of the 8 state and federal agencies that serve on the Partnership's Coordinating Committee and describes 14 cooperative restoration projects that are currently underway. Each project involves several partners which may include municipalities, state and federal agencies, non-profit groups, and private landowners.

The Report sets out a 1996/97 Action Agenda to be implemented by the Partnership's Coordinating Committee which includes representatives from U.S. Fish & Wildlife Service, U.S. Environmental Protection Agency, National Marine Fisheries Service,

## **GROWetlands is Growing!**

The GROWetlands initiative, announced by WRBP last summer, is the primary vehicle by which wetlands restoration projects may receive assistance from WRBP and its Partners. GROWetlands was established to encourage and support a collective effort by the citizens of the Commonwealth to restore our precious wetland heritage. A GROWetlands project becomes part of a statewide network of wetland restoration sites.

GROWetlands projects can be sponsored by anyone - community groups, government agencies, youth groups, schools, land trusts, watershed associations, and landowners. GROWetlands projects are supported by and are part of the Partnership To Restore Massachusetts Wetlands, an alliance of agencies, organizations, businesses, and individuals committed to

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wetlands restoration. GROWetlands projects contribute to the partnership by restoring wetlands and providing information about their sites so others can learn from their experience.

GROWetlands project sponsors submit a brief project nomination form to WRBP, participate in a preliminary [continued next page] site visit and project assessment with the WRBP Wetlands Restoration Assistance Team (volunteer wetland experts), collaborate with WRBP to prepare a work plan for the site, and sign an agreement with WRBP to implement the work plan.

GROWetlands sponsors may receive:

- \* technical information and support from wetland experts;
- \* training sessions for sponsors, volunteers, teachers, and others;
- \* assistance identifying and obtaining funding;
- \* access to WRBP's wetlands restoration data base;
- \* support of the Partnership to Restore Massachusetts Wetlands; and
- \* recognition for their contribution to improving the state's wetlands.

The following wetlands restoration projects are currently under GROWetlands agreements:

**College Pond, Gordon College, Wenham:** Prior to the Wetlands Protection Act, Gordon College constructed a parking lot extending over a wetland fringing a small pond. Over several decades, the pavement sank below the level of the pond surface as the underlying peat compressed. The College plans to remove the pavement and restore the former wetland. The site is just off Route 128 and upstream of several ponds, one of which provides public water supply. The Wenham Conservation Commission is taking the lead in a cooperative effort to evaluate the potential impact of runoff from the highway and adjacent development on the proposed restoration area and on downstream resources. Along with WRBP, cooperators include MassHighways, Natural Resources Conservation Service, Massachusetts Audubon Society, Department of Environmental Protection, and U.S. Fish & Wildlife Service.

**Hall's Pond, Brookline:** To learn about this exciting

urban wetland restoration project at an historic site in Brookline, see article on page 4.

**Town Common, Bellingham:** The Town of Bellingham purchased land to create a town common. When asked what their vision for the common was, a majority of residents advocated restoration of 1.5 acres of wetland. Sediment from Route 140 runoff is up to 3 feet thick and *Phragmites australis* (common reed) has invaded some areas of the marsh. The Norfolk County Mosquito Control Project will assist the town with the restoration work. The town is exploring with MassHighway the possibility of installing a catch basin to prevent continued siltation.

**Goldthwait Reservation, Marblehead:** This approximately 10-acre salt marsh, one of the few remaining in Marblehead, is being invaded rapidly by *Phragmites australis*. The Goldthwait Reservation Association, which owns the marsh and the adjacent beach, raised over half the funds for restoration by holding community events. The balance of funding is being provided by the U.S. Fish & Wildlife Service's Partners For Wildlife Program and Sweet Water Trust. The project received an Order of Conditions from the Marblehead Conservation Commission. The Northeast Massachusetts Mosquito Control and Wetlands Management District (formerly the Essex County Mosquito Control Project) began restoration work in December 1996.

**Broad Meadows, Parkhurst, and Billings Creek Salt Marshes, Quincy:** WRBP is working with the City of Quincy to develop restoration plans for three salt marshes. The City already has restored three marshes and a freshwater pond.

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The commitment to GROWetlands sites is long-term. A GROWetlands project is supported by WRBP and other partners from the time it is proposed through project organization and design, implementation, and post-implementation maintenance and monitoring. The payback is restored wetlands that will endure and enhance the lives of generations to come.

## **Brookline To Restore Hall's Pond Wetland**

Imagine if you will, the restoration of an acre of wetland in the middle the city. Hall's Pond Sanctuary, a 3.5-acre conservation area managed by the Brookline Conservation Commission for passive recreation and wildlife, is located within walking distance of Fenway Park. As part of a recently completed Sanctuary Plan prepared by Bill Giezentanner and Don Eunson of the Massachusetts Audubon Society Extension Service, the Commission plans to restore an acre of vegetated wetland and connect Hall's Pond to another nearby conservation area called Amory Woods. The wetlands restoration element of the plan is part of the Commission's effort to improve water quality in the pond and diversify wildlife habitat.

Hall's Pond is the remnant of a cedar swamp which covered much of the Cottage Farm area of Brookline prior to European settlement. Over time, the swamp was filled and drained as the town developed. Today, the pond is surrounded by dense residential and commercial development and is located between the busy boulevards of Beacon Street and Commonwealth Avenue. The sanctuary provides a respite from hectic city life for urban residents, especially apartment and condominium dwellers who have no other outdoor space.

Some of the roots of the state conservation movement can be traced to the Hall's Pond area. The pond itself is named for the Hall family, which owned it in the past. A member of the family, Minna Hall, and her friend and neighbor, Harriet Lawrence Hemenway, co-founded the Massachusetts Audubon Society in 1896. Minna Hall's home still overlooks the pond. Hall's Pond was an early birding destination, having been described by Reginald Heber Howe in his book *On the Birds' Highway* in 1899. Today, urban birders visit the pond regularly to observe Great Blue Herons, Black Crowned Night Herons, Orioles, Belted Kingfishers, and migrating songbirds.

The plan for restoring Hall's Pond began with the preparation of a diagnostic/feasibility study in 1986 which identified the pond's serious sedimentation and eutrophication problems. The study, prepared by Metcalf & Eddy, proposed various measures including the diversion of stormwater around the pond and the installation of wells. In 1995, the Conservation Commission began the preparation of the Hall's Pond Sanctuary Plan to re-assess the pond and to address vegetation management and landscape improvements. An extensive community planning process was conducted to solicit public input and response to proposed ideas. Out of this process grew the idea of restoring wetlands at Hall's Pond. Further recommendation for a constructed wetland was suggested by the Natural Resources Conservation Service based on an assessment performed by Marc

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MacQueen and Larry Boutiette in July 1996.

Seeking further support, the Commission turned to the Wetlands Restoration & Banking Program. Christy Foote-Smith and Ralph Tiner visited the pond and encouraged the Commission to pursue wetlands restoration. Subsequently, the Commission and the Friends of Hall's Pond, Inc. entered into an agreement with WRBP to participate in the GROWetlands Program.

With the Sanctuary Plan as a basis, the Commission [continued next page] applied for and was awarded a Section 319 Nonpoint Source Pollution Prevention Grant by the Department of Environmental Protection of \$68,757 to implement the wetlands restoration element of the Sanctuary Plan. The Commission was also recently awarded a Lake and Pond Grant from the Department of Environmental Management for \$2,850 to conduct stormwater education activities around the pond.

Design of the wetland restoration and other aspects of the Sanctuary Plan is about to begin. The Town has selected the firms of Brown & Rowe and Fugro, who teamed up in response to a Request for Qualifications, to provide design services. Both firms worked together on the restoration of Hill's Pond in Arlington. As the design progresses, participation by interested citizens and the schools will be built into the construction and monitoring phases of the project.

For further information, contact John Bolduc, Conservation Director, at (617) 730-2088 or send e-mail to [john\\_bolduc@brookline.mec.edu](mailto:john_bolduc@brookline.mec.edu).

*John Bolduc*

## **Other Cooperative Restoration Projects**

### ***Sagamore Marsh Update***

Sagamore Marsh lies on the north side of Cape Cod at the Canal's east end in the towns of Bourne and Sandwich. A 48-inch culvert was constructed in the mid-1930s at the south end of the marsh to drain runoff from the marsh into the Canal, and a 48-inch culvert was later constructed beneath Scusset Beach Road when

that road was built. The culverts do not provide sufficient tidal flushing to most of the marsh to support typical salt marsh plants. The reduction in tidal flows transformed most of the salt marsh into a predominantly fresh-brackish marsh system dominated by *Phragmites australis* (common reed). Through a cooperative effort with the Commonwealth, the Army Corps proposes to install a larger culvert with tidegates and increase the size of the channel to restore 50 or more acres of former salt marsh. Funding has been approved to develop detailed plans and specifications for the project. Final elevations for increased flooding must avoid impacts to spotted salamander habitat, a state-listed species. Permits and a final EIR must be obtained before construction can begin.

## ***Cape Cod National Seashore Initiates Salt Marsh Restoration***

Cape Cod National Seashore has begun the environmental permitting process to restore 90 acres of a 200-acre salt marsh in Provincetown. The Seashore is partnering this project with the town of Provincetown as the main proponent. The Hatches Harbor salt marsh is a remnant of a larger salt marsh complex that existed at the time of the first European settlement. This salt marsh was primarily a *Spartina patens* (salt hay grass) and *S. alterniflora* (smooth cord grass) community. In 1930, the upper 200 acres were enclosed behind a dike in order to control salt water mosquito populations. The elimination of tidal flow dewatered part of the upper marsh, changing the mosaic of salt marsh and wetland communities. Subsequently, a small airport was constructed on the landward end of the marsh complex, an airport which today constitutes an important part of the town's economy.

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Presently, the seaward end of the upper marsh inside the dike has a restricted tidal range that severely limits the establishment and persistence of *Spartina* habitat. The result has been the invasion of *Phragmites australis*, the common reed, into substantial portions of the relict *Spartina* marsh. This invasion by *Phragmites* has resulted in a degraded salt marsh community, with reduced nursery habitat, loss of shellfish habitat, and increased vulnerability to water quality degradation. Recent research indicates that salt marshes with unrestricted tidal flow have less troublesome mosquito populations because they provide habitat for fish species that feed on mosquito larvae.

Research conducted by National Park Service (NPS) and United States Geological Survey scientists demonstrates [continued next page]

that increasing the tidal range would greatly reduce *Phragmites* habitat and re-establish *Spartina* habitat in its place. The restoration project is designed to preserve the Provincetown airport in its present-day form as well as future alternatives that may be proposed to enhance airport safety. Restored salt marsh would act as additional flood protection for the airport against severe storm events by buffering overwashes. Larger culverts will allow faster drainage of standing water after heavy precipitation events.

The Seashore's plan is to replace the 2-foot culvert with four 7-foot by 3-foot culverts with adjustable tide gates. This design allows the culverts to be opened slowly over a number of years so the *Phragmites* habitat will be replaced gradually by *Spartina* habitat. This incremental process will allow NPS scientists to carefully calibrate the restoration without any sudden die-off of vegetation that would lead to the establishment of mud flats and open water that may pose a potential bird hazard to the airport. Five earthen berms will be strategically placed to protect the Instrument Landing Array of the airport and also preserve the option for construction of alternate safety enhancements. Completion of the restoration project would convert 60 to 90 acres of degraded *Phragmites* habitat to *Spartina* habitat, making this project one of the largest salt marsh restoration projects in Massachusetts.

The environmental permitting process will be a co-operative effort. Because of the unique aspects of town and Seashore land jurisdiction, this will be a shared process between Provincetown and the NPS. The goal is

to broadly educate the public, inside and outside of Provincetown, as well as all federal, state and local agencies, to the benefits of this restoration project, and to gain public support. The Seashore has met with federal, state, and local agencies to further describe the construction of the culverts, identify permitting requirements, and answer environmental, jurisdictional, and economic concerns. The National Park Service is now continuing with private and public forums to better explain the project as the permitting process proceeds. If there are any questions about this project, or if you would like a tour of the restoration site, please contact Norm Farris, Project Manager, Hatches Harbor Restoration Project, (508) 349-3785 x206 or Mike Reynolds, x216.

*Norm Farris*

## **WRBP Reaches Out**

The fundamental concept behind WRBP - wetland restoration in a watershed context - is relatively new. To

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gain public understanding of and support for this approach, WRBP has a strong commitment to public education and outreach. GROWetlands agreements generally include public education activity associated with restoration sites. Watershed wetlands restoration planning includes active public outreach to watershed communities, including public schools.

To support these activities, WRBP is developing outreach materials. "Restoring Massachusetts Wetlands", a coloring book/comic book suitable for Grades 1-6, funded by the Massachusetts Bays Program, was completed last fall. The book is a key component of WRBP's new "Wetlands Kit for K-12 Educators". A twelve-minute video introducing wetlands restoration through project examples has just been completed with funding from Sweet Water Trust. The video will be distributed to public libraries across the state and will be available on loan from WRBP. For more information about WRBP outreach materials, call (617) 727-9800 x213.

## **WRBP Initiates North Shore Salt Marsh Restoration Effort**

WRBP has just completed an "Atlas of Tidally Restricted Salt Marshes" covering twenty communities on the North Shore of Massachusetts. Prepared with support from the U.S. Fish & Wildlife Service and the Natural Resources Assessment Group at the University of Massachusetts in Amherst, the Atlas contains U.S.G.S. quad-based maps showing major wetland resources (see figure below) and salt marshes that have been impacted by ditching and "tidal restrictions" - structures such as tide gates and culverts that inhibit normal tidal flow.

Tidally restricted salt marshes do not receive sufficient tidal flushing to maintain a healthy marsh ecosystem. Loss of tidal flow results in loss of saline conditions that support diverse coastal wetland plant communities. The freshening of salt marshes causes a major transformation in vegetation - salt marsh grasses and rushes are displaced by common reed (*Phragmites australis*). Common reed often forms a monoculture of tall reeds (up to 12 feet or more), leading to both lowered plant diversity and a shift in wildlife use. Despite some use of the reeds for perching or nesting, no animals prefer common reed over other habitats. This is in marked

contrast to distinct preferences for salt marsh vegetation over other habitats by many wildlife species.

Restoring our salt marshes will take the collective efforts of many concerned citizens. WRBP is working in cooperation with Coastal Zone Management, Parker River Clean Water Association, 8 Towns and the Bay, Salem Sound 2000, and MetroBoston Local Governance Committee to set up local salt marsh restoration teams. The teams will help evaluate restoration sites, coordinate with local agencies and others, prioritize restoration sites, gain public support, and implement restoration projects. WRBP will provide training and technical assistance and can help secure funding.

The conservation commission and library of each town studied have received copies of the Atlas with color maps which are available for public review. In addition, the Atlas can be viewed at each of the following locations by calling ahead for an appointment.

8 Towns and the Bay  
Lisa Nicol - (508) 374-0519

Metropolitan Area Planning Council  
Nancy Goodman/Bill Clark - (617) 451-2770

Coastal Zone Management/North Shore  
Andrea Cooper - (508) 281-3972

Massachusetts Audubon Society, North Shore  
Kathy Leahy - (617) 927-1122

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Wetlands Restoration & Banking Program  
Christy Foote-Smith - (617) 727-9800 x213

Massachusetts Bays Program - (617) 727-9530

WRBP is holding two regional meetings to present the Atlas and to develop salt marsh restoration implementation strategies. **Everyone is welcome:**

Thursday, March 27 - 7 PM  
Castle Hill, Ipswich  
Argilla Road site visit - 6 PM

Monday, March 31 - 7 PM  
Danvers Town Hall  
Porter River site visit - 6 PM

Please call Michelle Vaillancourt at  
(617) 292-5824 for directions and to  
sign up to serve on your local salt  
marsh restoration team.

## **Funding Highlights**

### *Section 319 Competitive Grants Program*

Section 319 (S.319) of the Clean Water Act of 1987 was established as a national program to control nonpoint sources (NPS) of pollution. Each year the Department of Environmental Protection (DEP), Division of Municipal Services issues a Request for Responses (RFR) for competitive projects to be funded under S.319. The RFR for federal fiscal year 1998 (FFY'98), which runs from October 1, 1997 through September 30, 1998, funding was released on **February 18, 1997**. Grant proposals are due **April 17, 1997 at 5 PM**.

This year the S.319 RFR will be advertised and distributed through the Commonwealth Procurement Access and Solicitation System (Comm-PASS). This system works by placing the RFR on the Internet, allowing prospective Bidders the ability to search for and download an RFR at their convenience. Bidders can access the Comm-PASS through the Internet themselves, as well as at state colleges and universities. Information regarding Comm-PASS and access locations can be obtained by calling the Comm-PASS

Help Desk at 1-888-MA STATE, or by sending an E-Mail to [Comm-PASS@state.ma.us](mailto:Comm-PASS@state.ma.us). For additional information about Comm-PASS, visit the Internet Site at <http://www.magnet.state.ma.us/Comm-PASS>.

In order to be considered eligible for funding, projects must: implement measures that address the prevention, control, and abatement of NPS pollution; target the major source(s) of NPS within a subwatershed; have a 40% non-federal match of the total project cost; contain an appropriate method for evaluating the project results; address activities that are identified in the Massachusetts NPS Management Program Plan; and comply with Affirmative Action and Minority/Women Business Enterprise Requirements.

Proposals may be submitted by any interested **Massachusetts Public or Private Organization**. The RFR outlines all eligibility requirements, a schedule for each step of the application process, and project evaluation criteria.

Eligible projects are rated and selected for funding by the internal screening committee. Preference may be given to projects that complement the Department's ongoing or scheduled basinwide activities, and, for FFY'98, address NPS pollution in the Farmington, South Coastal, SuAsCo (Sudbury, Concord and Assabet), Taunton, and Westfield Watersheds. A list of recommended projects is submitted with DEP's federal grant application in August. Once the grant application is approved by U.S. EPA, the DEP begins contract negotiations with the proponents of the funded projects.

Types of eligible S.319 projects include: comprehensive **Subwatershed** projects that address all major identified nonpoint sources affecting water quality in a subwatershed; **Demonstration** projects that accelerate the transfer and adoption of new or innovative BMPs, technology, or institutional approaches; **Groundwater** projects that target high priority statewide NPS groundwater problems; **Inlake** projects which address the control of NPS pollution from lake watersheds; and **Watershed Resource Restoration** projects that restore vegetated wetlands, lakes, river, streams, coastal zones and estuaries, shorelines, riparian areas, seagrass beds, and other aquatic habitats.

**Prospective applicants are encouraged to submit proposals for projects that complement the Massachusetts Executive Office of Environmental**

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**Affairs' Wetlands Restoration and Banking Program.**

To obtain additional program information or to obtain a copy of the FFY'98 RFR, please call Leslie O'Shea at (508) 767-2796, or write to Department of Environmental Protection, Division of Municipal Services, 627 Main Street, Second Floor, Worcester, MA 01608.

*Leslie O'Shea*

*Wetlands Reserve Program*

The Natural Resources Conservation Service (NRCS) is currently accepting applications for "Permanent Easements" and "Restoration Agreements" to preserve and restore wetlands that have been altered by previous agricultural activity such as land drainage. Under the Permanent Easements, NRCS will compensate landowners for conservation easements by paying the appraised agricultural value of the land. In addition, NRCS will pay 100% of the cost of restoration. Under Restoration Agreements, NRCS can pay for 75% of the cost to restore an agriculturally altered wetland area. Landowners who wish to protect and restore agricultural land areas that were once wetlands, and receive compensation to do so, should contact their local NRCS/Conservation District Field Office or call Rick DeVergilio at (413) 253-4350.

*Rick DeVergilio*

**WRBP Conducting  
Wetland Mitigation Study**

The Massachusetts Wetland Restoration & Banking Program (WRBP) is conducting a study of wetland replication in Massachusetts, in cooperation with the University of Massachusetts Amherst. The purpose of this study is to improve efforts to replace wetland functions by providing the best possible information about how projects can be made more successful. The study will provide the most detailed and statistically robust data available about the number, distribution, and ecological results of current wetland mitigation projects in Massachusetts. In addition to providing much needed information about the effectiveness of current mitigation practices, it will provide a baseline for comparing the results of pilot wetlands mitigation banks with traditional approaches to mitigation.

Our study will provide much needed information on the effectiveness of replication projects at replacing the

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functions of impacted wetlands, and the design standards that are most effective at producing successful projects. We have designed the study in cooperation with the Massachusetts Association of Conservation Commissions in an effort to make it as valuable as possible to all of the Conservation Commissions in the state. We simply do not know whether our present approach of trying to create wetlands in exchange for unavoidable filling of existing wetlands is supporting the Commonwealth's policy of "no net loss" of wetlands. This study will play an important role in our efforts to provide accurate information about the effectiveness of current wetland mitigation policy throughout the state. The results of the study will be provided by the Wetlands Restoration & Banking Program to all Conservation Commissions.

We randomly selected 46 towns throughout the state from all four DEP Regions and from each natural ecoregion to ensure that the study results would represent conditions throughout the entire state. The files for all replication projects permitted between 1983 and 1994 in each study town are being reviewed to collect basic information about the design and construction of the replication sites. We are also analyzing the replication associated with all Variance projects permitted in the state. Beginning in the spring, we will conduct site visits to collect data on site development. We are currently seeking funding to support an extensive field evaluation, including the use

*[continued on next page]*

of functional assessment techniques to determine the levels of function provided by the replication sites relative to reference wetlands.

Several members of the Wetland Restoration Assistance Team have volunteered their time and expertise to assist with the study. If you have any questions about the study, or are interested in volunteering to help, please contact Dr. Stephen Brown, at 617-292-5986.

*Stephen Brown*

time period when the program was under development. His contributions to shaping the program have been significant. Together, Christy Foote-Smith and Ralph Tiner developed the watershed wetlands restoration evaluation and planning process and conducted five pilot watershed projects. Ralph established the Wetlands Restoration Assistance Team, a group of volunteer wetland scientists coordinated by WRBP who assist wetland restoration project sponsors, led a statewide study of *Phragmites* invasion, and completed an inventory of potential salt marsh restoration sites on the North Shore. Ralph will continue to be involved in WRBP projects through the University of Massachusetts/Amherst.

## **Tiner Returns to USFWS**

Ralph Tiner served as WRBP Wetland Scientist for two years on part-time assignment from the U.S. Fish & Wildlife Service. Ralph returned to his regular duties last fall. Ralph's tour of duty with WRBP covered the

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**Massachusetts Wetlands Restoration News**

is published twice annually by the Wetlands Restoration & Banking Program for the Partnership To Restore Massachusetts Wetlands. The principal writer and editor is Christy Foote-Smith, WRBP Director and Partnership Coordinator.

**Credits:** Logo and graphic on cover page are by Frank Biasi. Graphics on pages 4, 8, 9, and 10 are by Thomas Ford, Courtesy of Tip of the Mitt Watershed Council, Michigan. Graphic on page 5 is by Dan Dailey.

**Partnership to Restore Massachusetts Wetlands, Coordinating Committee:**

Executive Office of Environmental Affairs

Executive Office of Transportation &  
Construction

Natural Resources Conservation Service

U.S. Environmental Protection Agency

U.S. Army Corps of Engineers

National Marine Fisheries Service

U.S. Fish & Wildlife Service

Federal Highway Administration

Massachusetts Association of

Conservation Commissions

Massachusetts Audubon Society

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## JOIN THE MOVEMENT - BE A RESTORATION PARTNER

The Coordinating Committee of the Partnership To Restore Massachusetts Wetlands invites anyone who has an interest in wetlands restoration to join the Partnership To Restore Massachusetts Wetlands which is now 200 strong. Welcome to the following people who have joined the Partnership in recent months.

Cornelius W. Andres	Nancy Church	Laurene Gerrior	John Indelicato
Ruth Ladd	Rick Reinecker	Mary Rimmer	Matt Schweisburg

Show your support for restoring Massachusetts' wetlands. We look forward to seeing your name here in the next edition of this newsletter. Use the Partnership Form below.

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## PARTNERSHIP TO RESTORE MASSACHUSETTS WETLANDS

### PARTNERSHIP FORM

Name \_\_\_\_\_ Title \_\_\_\_\_

Affiliation \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_ ( ) \_\_\_\_\_

**I/we wish to join the over 200 agencies, organizations, and individuals that support the "Resolution to Restore Massachusetts Wetlands".**

Please include my (check one): \_\_agency \_\_organization \_\_self as a Partner in the Partnership to Restore Massachusetts Wetlands and put me on the mailing list to receive **Massachusetts Wetlands Restoration News**. I understand that this does not involve a commitment to a specific action or financial contribution. I/we will make implementation of the Action Plan a priority and will do everything within our power to restore Massachusetts wetlands.

\_\_\_Please send me a copy of the Partnership's **Action Plan**.

Please return this form to:

Wetlands Restoration & Banking Program  
Executive Office of Environmental Affairs  
100 Cambridge Street - 20th Floor  
Boston, MA 02202  
PHONE: 617-727-9800 x213  
FAX: 617-727-2754

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**Wetlands Restoration & Banking Program  
Executive Office of Environmental Affairs  
100 Cambridge Street - 20th Floor  
Boston, Massachusetts 02202  
(617) 727-9800 x213**

## **Massachusetts Wetlands Restoration News**

***"Strengthening Wetlands Protection in Massachusetts"***

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***1996 Wetlands Restoration Award Presentations:*** (left to right)  
*Christy Foote-Smith, WRBP Director; Dennis Lowry, Fugro; Susan Gillan, City of Chicopee; Walter Montgomery, Essex County Mosquito Control Project; Michael Wheelwright, Quincy DPW; Secretary Trudy Coxe, EOE; Ralph Tiner, U.S. Fish & Wildlife Service.*

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